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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,504	07/21/2003	Satoshi Seo	12732-160001	4688

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EXAMINER
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GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/622,504

Applicant(s)

SEO ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,4-13 and 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,14 and 23-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is responsive to the amendment dated February 28, 2005. Claim 3 was amended. Claims 1, 2, 4-13, and 15-22 are withdrawn. Claims 3, 14, and 23-32 are currently under consideration. Compound [3] is the current species under consideration.
2. The rejection of claims 3 and 23 under 35 USC 102(b) as being anticipated by Janssen et al., J. Chem. Phys. 103(2), Nov. 1995, is withdrawn due to the amendment of claim 3, which is now drawn to a device.
3. The rejection of claims 3, 23, and 24 under 35 USC 102(e) as being anticipated by Zaidi et al. (WO 03/062305) is withdrawn due to the amendment of claim 3, which is now drawn to a device.
4. It is suggested that applicant amend the preamble of claims 23 and 24 to be consistent with independent claim 3, which is now drawn to a device. Claims 23 and 24 have been examined as device claims with regard to this Office action.
5. Claims 3, 14 and 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernius et al. (US 2002/0153523) in view of Kono et al. (5,917,693). Bernius et al. teaches organic light emitting diodes on plastic substrates (see title). The Bernius et al. device comprises an optoelectrically active film between two electrodes per the instant anode, cathode and electroluminescence layer (see abstract). Bernius et al. also teaches a separate hole transporting layer (see par. 35) per instant claim 3. Bernius et al. further teaches the anode may be coated with a thin layer of a conducting substance, which may include doped polyaniline (see par. 35). The coating on the anode reads upon the instant "buffer layer" in contact with the anode.

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Bernius et al. fails to teach the specific polyaniline dopant "TCNQ". Kono et al. teaches it is known in the art to dope polyaniline with TCNQ to form an electrically conductive polyaniline (see col. 5, lines 31-35). It would have been obvious to one of ordinary skill in the art to have doped the polyaniline taught by Bernius et al. with TCNQ, because Kono et al. teaches polyaniline doped with TCNQ is an electrically conductive material as required by Bernius et al. Because the references disclose the same materials as set forth by applicant, the redox properties of claims 25, 28, and 31 are deemed to be inherent. With regard to claims 26, 29, and 32, emeraldine base of polyaniline is specifically taught by Bernius et al. as a type of polyaniline that is doped (see par. 35).

#### ***Response to Arguments***

6. Applicant's arguments filed February 28, 2005 have been fully considered but they are not persuasive. The remarks with regard to Janssen and Zaidi are now moot, because the rejections over Janssen and Zaidi have been withdrawn.

With regard to the arguments over Bernius in view of Kono, In response to applicant's argument that Kono is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, teaches an improvement for polyaniline as an electrically conductive material and Bernius teaches the use of polyaniline in the device as an electrically conductive material.

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With regard to the argument that neither Bernius nor Kono discloses a hole transport layer, Bernius teaches a hole transport layer in paragraphs 35 and 40.

The rejection over Bernius in view of Kono is respectfully maintained.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Dawn Garrett*  
DAWN GARRETT  
PRIMARY EXAMINER  
1774

D.G.  
May 19, 2005